

Date: Tuesday, 11/29/2005 6:49:28 PM
 User: Linda Lacelle

Process Sheet

Split - 1 Jan 17

Customer : CU-DAR001 Dart Helicopters Services Drawing Name : MID TUBE ASSEMBLY
 Job Number : 25036
 Estimate Number : 10469 Part Number : D3391023
 P.O. Number : N/A Drawing Number : D3391 REV C
 This Issue : 11/29/2005 S.O. No. : N/A Project Number : N/A
 Prsht Rev. : NC Drawing Revision : C
 First Issue : N/A Type : LANDING GEAR Material : N/A
 Previous Run : N/A Due Date : 12/20/2005 Qty: 5 Um: Each
 Written By : SEE ABOVE USE & DATE
 Checked & Approved By :
 Comment : Created By Auto Work Order

Additional Product

Job Number:



Seq. #: Machine Or Operation: Description:

1.0 D25001100 Skidtube Extrusion



Comment: Qty.: 1.0000 Each(s)/Unit Total: 5.0000 Each(s)
 SKIDTUBE EXTRUSION

Pick:

Qty	Part Number	Description
1	D2500-1-100	Extrusion

Batch

B24593

DP06-1-13

(5)

Tools:

2.0 LANDING GEAR 1 LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

- 1-Cut tube to finish length as per Dwg D3391 DP06-1-13 (5)
- 2-Identify as D3391-023 DP06-1-13 (5)
- 3-Drill pilot holes using DT8796 as per Dwg D3391 DP06-1-13 (5)
- 4-Open float bag holes to Ø0.250" as per Dwg D3391 using DT8796D visual aid Jig DP06-1-13 (5)
- 5-C'sink float bag holes as per Dwg D3391 DP06-1-13 (5)
- 6-Open remaining holes to Ø0.438" as per Dwg D3391 DP06-1-13 (5)
- 7-Remove indexing ridge on aft end of skidtube as per Dwg D3391
- 8-Deburr
- 9-Drill #30 pilot holes using wearplate Jig DT8217/Identify Ø0.208" holes with paint marker
- 10-Open wearplate holes of D3391-023 assembly detail section G-G to Ø0.208" (14 holes) as per Dwg D3391
- 11-Open wearplate holes of D3391-023 assembly detail section H-H to Ø0.250" and c'sink (20 holes) as per Dwg D3391
- 12-Deburr and blow out all chips from inside tube

Tools:

DP
06-3-23

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Tuesday, 11/29/2005 6:49:28 PM
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Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: MID TUBE ASSEMBLY

Job Number: 25036

Part Number: D3391023

Job Number:



Seq. #: Machine Or Operation: Description :

3.0

QC5

INSPECT WORK TO CURRENT STEP



06-03-23

Comment: INSPECT WORK TO CURRENT STEP

Tools:

4.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1 *27 06-03-23 (3)*

Tools:

5.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



06-03-23

Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

Tools:

6.0

D33891

Web



Comment: Qty.: 1.0000 Each(s)/Unit Total: 5.0000 Each(s)

WEB

Pick:

Qty

Part Number

Description

Batch

1

D3389-1

Web

B25059

B24886

A/R

Sikaflex-241-291

M19134

m19597

06-03-24

Sikaflex expire date: *06-20-05*

06-06-18

Start: *06-1-18* Time: *8pm*

DP 06-03-24 (3)

Finish: _____ Time: _____

Tools:

7.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

Bond web in place as per Dwg D3391 & QSI 015.

Adhere for 12 hours)

BE 06-03-24 (3)

Tools:

8.0

NAS1330C3KB116

Insert



Comment: Qty.: 20.0000 Each(s)/Unit Total: 100.0000 Each(s)

Insert

Pick:

Qty

Part Number

Description

Batch

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Tuesday, 11/29/2005 6:49:28 PM
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Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: MID TUBE ASSEMBLY

Job Number: 25036

Part Number: D3391023

Job Number:



Seq. #:

Machine Or Operation:

Description:

20

NAS1330C3KB116

Insert

M19014

Tools:

9.0

NAS1330C3KB166

Rivnut



Comment: Qty.: 10.0000 Each(s)/Unit Total: 50.0000 Each(s)

Rivnut

Pick:

Qty Part Number

Description

Batch

10

NAS1330C3KB166

Insert

M18308

Tools:

M DL 06/04/04 (3)

10.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

Install inserts as per Dwg D3391

Tools:

M DL 06/04/04 (3)

11.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

Tools:

12.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

Use paint screws to mask inserts.

M DL 06/03/23 (3)

Tools:

13.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

FC 06 03 23 (3)

Tools:

14.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: _____

FC 06 04 07 (3)

Tools:

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☒ No ☐ DQA: ☒ _____ Date: 4/8/12
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Tuesday, 11/29/2005 6:49:29 PM
User: Linda Lacelle

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: MID TUBE ASSEMBLY

Job Number: 25036

Part Number: D3391023

Job Number:



Seq. #:

Machine Or Operation:

Description :

15.0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL
Inspection Level 21

SD 06/04/10 (3)

Tools:

Job Completion



U 06-07

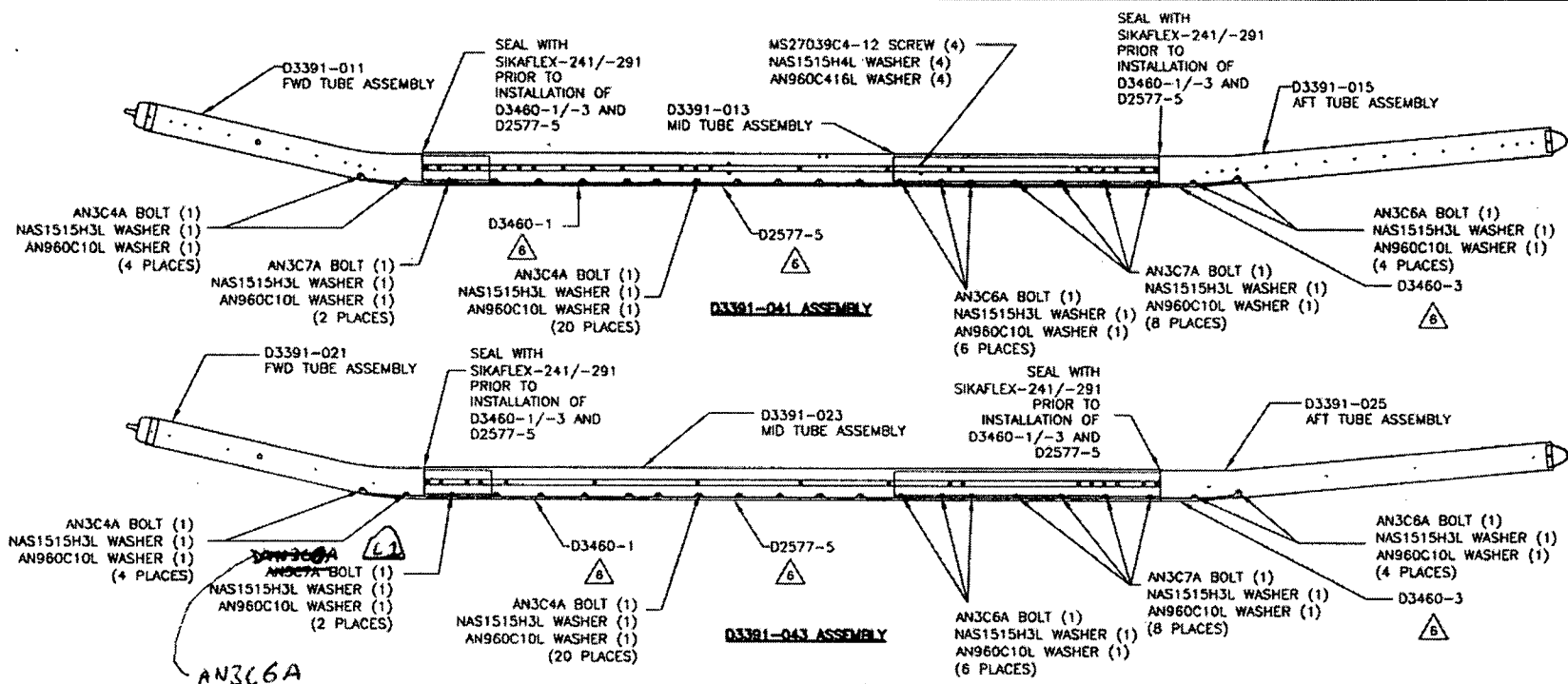
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



D3391-041/-043 FLOAT SKIDTUBE ASSEMBLY PARTS LIST

QTY - 041	QTY - 043	PART NUMBER	DESCRIPTION
X	X	D3391-041	FLOAT SKIDTUBE ASSEMBLY
		D3391-043	FLOAT SKIDTUBE ASSEMBLY
1		D3391-011	FWD TUBE ASSEMBLY
1		D3391-013	MID TUBE ASSEMBLY
1		D3391-015	AFT TUBE ASSEMBLY
1	1	D3391-021	FWD TUBE ASSEMBLY
1	1	D3391-023	MID TUBE ASSEMBLY
1	1	D3391-025	AFT TUBE ASSEMBLY
24	24	AN3C4A	BOLT
10	10	AN3C6A	BOLT
10	10	AN3C7A	BOLT
44	44	NAS1515H3L	WASHER
44	44	AN960C10L	WASHER
4		MS27039C4-12	SCREW
4		NAS1515H4L	WASHER
4		AN960C416L	WASHER
1	1	D2577-5	WEARSHOE
1	1	D3460-1	WEARSHOE
1	1	D3460-3	WEARSHOE

GENERAL NOTES

- 1) ALL DIMENSIONS ARE IN INCHES
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) FINISH: ACID ETCH AND ALODINE PER DART QSI 005 4.1
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 4) SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND AFTER INSTALLATION OF INSERTS. COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY. CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.
- 5) USE DART DRILL TEMPLATE DT8217 TO LOCATE AND DRILL "E" SIZE HOLES (#0.250-#0.256) FOR WEARSHOE INSERTS.
C'SINK #0.391/#0.425 x 100" AS APPLICABLE AND INSTALL INSERTS EXCEPT WHERE INDICATED.
- 6) APPLY A LAYER OF SIKAFLEX -241/-291 ADHESIVE BETWEEN THE BOTTOM OF THE SKIDTUBE ASSEMBLY AND THE WEARPLATES

RELEASED

05.11.14

L3 CHANGE BOLT LENGTH (5.11.14)

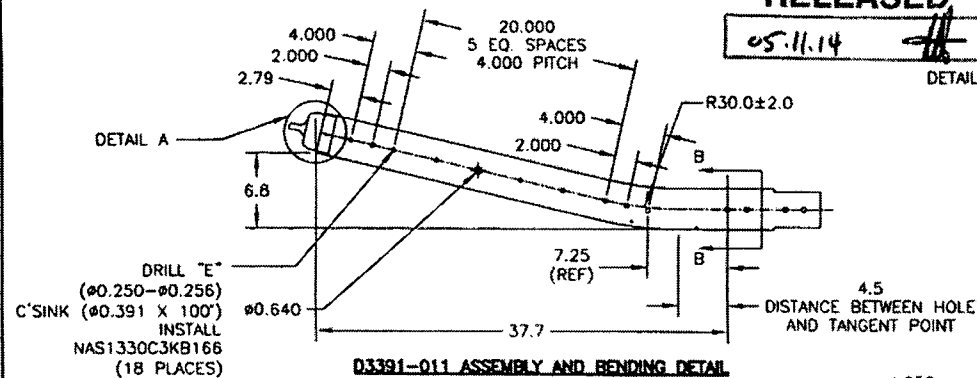
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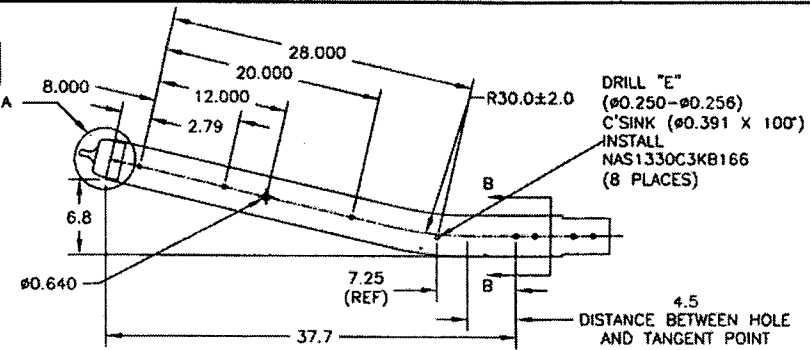
C	05.09.27	LENGTHEN AFT EXTENSION
B	05.06.10	DRAWING UPDATES
A	05.02.07	NEW ISSUE
DESIGN	PH	DART DART AEROSPACE USA, INC.
CHECKED	PH	DART DART AEROSPACE USA, INC.
DATE	05.09.27	412 FLOAT SKIDTUBE

REV. # 61
SHEET 1 OF 5
SCALE
NTS

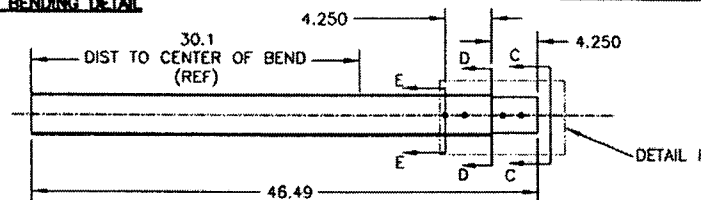
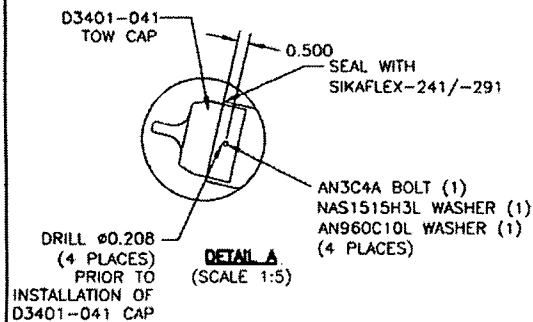
05.11.14 ~~11~~



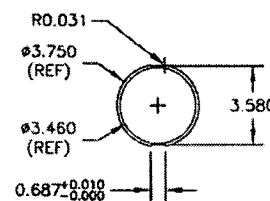
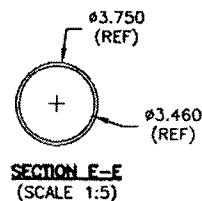
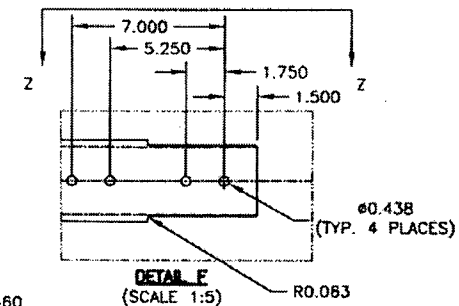
03391-011 ASSEMBLY AND BENDING DETAIL



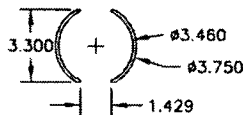
D3391-021 ASSEMBLY AND BENDING DETAIL



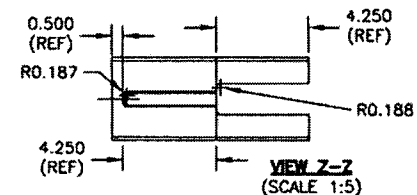
D3391-1 DRILLING AND CUTTING DETAIL
(MAKE FROM D6013-047 SKIDTUBE MATERIAL)



SECTION D-D
(SCALE 1:5)




SECTION C-C
(SCALE 1:5)



VIEW Z-Z
(SCALE 1:5)

D3391-011/-021 FWD TUBE ASSEMBLY PARTS LIST

QTY - 011	QTY - 021	PART NUMBER	DESCRIPTION
X		D3391-011	FWD TUBE ASSEMBLY
	X	D3391-021	FWD TUBE ASSEMBLY
1	1	D6013-047	FWD TUBE
1	1	D3401-041	TOW CAP
4	4	AN3C4A	BOLT
4	4	NAS1515H3L	WASHER
4	4	AN960C10L	WASHER
24	14	NAS133DC3KB166	INSERT

 DRILL "E"
 (Ø0.250-Ø0.256)
 C'SINK (Ø0.391 X 100")
 INSTALL
 NAS1330C3KB166
 (6 PLACES)



SECTION B-1
(SCALE 1:5)

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DESIGN	PH
CHECKED	<i>[Signature]</i>
DATE	05.09.27

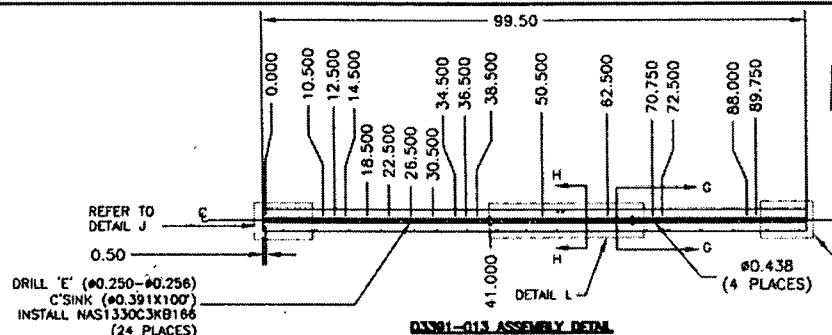
DRAWN BY	PH
APPROVED	

DART	
DRAWING NO.	D3391
TITLE	412 FLOAT

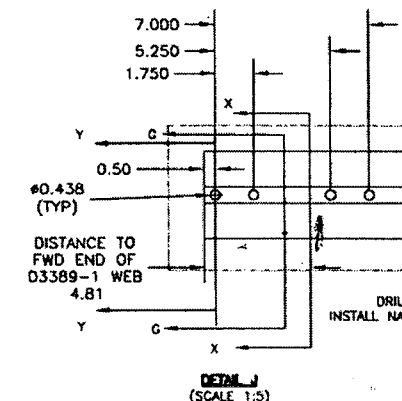
DART AEROSPACE USA, INC. PORT HADLOCK, MA	
REV. C	
SHEET 2 OF 5	
SCALE	
SKIDTUBE	1:10

RELEASED

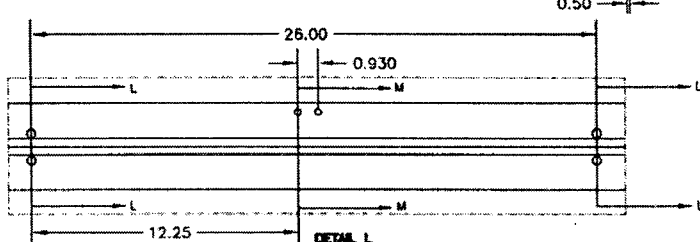
05.11.14



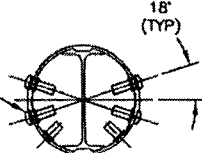
D3391-013 ASSEMBLY DETAIL



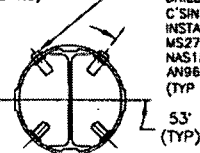
DETAIL J (SCALE 1:5)



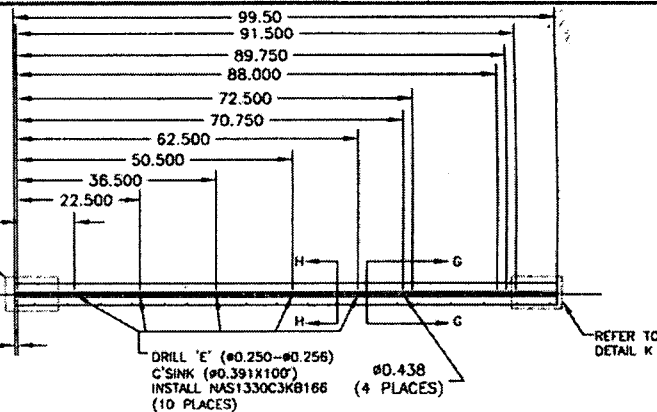
DETAIL L (SCALE 1:5)



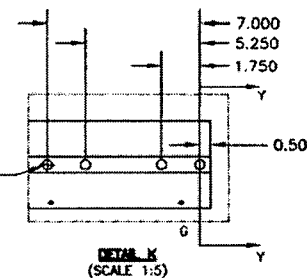
SECTION I-I (SCALE 1:4)



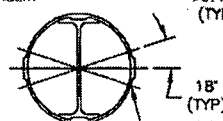
SECTION M-M (SCALE 1:4)



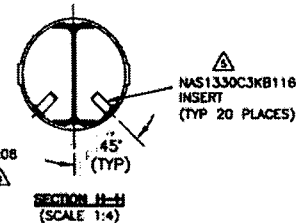
D3391-023 ASSEMBLY DETAIL



DETAIL K (SCALE 1:5)



SECTION LL-LL (SCALE 1:4)

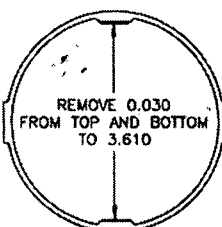


SECTION H-H (SCALE 1:4)

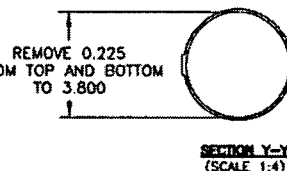
QTY - 013	QTY - 023	PART NUMBER	DESCRIPTION
X	X	D3391-013	MID TUBE ASSEMBLY
		D3391-023	MID TUBE ASSEMBLY
1	1	D2500-1-100	EXTRUSION
1	1	D3389-1	WEB
24	20	NAS1330C3KB116	INSERT
24	10	NAS1330C3KB166	INSERT
4		NAS1329C4KB140	INSERT
4		NAS1515H3L	WASHER
4		AN960C10L	WASHER
4		NAS1515H4L	WASHER
4		AN960C416L	WASHER
4		MS27039C1-08	SCREW
4		MS27039C4-08	SCREW

D3391-013/-023 MID TUBE ASSEMBLY

- MATERIAL: MAKE FROM D2500-1-100 EXTRUSION
- INSTALL D3389-1 WEB TO OUTER TUBE USING SIKAFLEX-241/-291 PER OSI 015



SECTION X-X (SCALE 1:2)

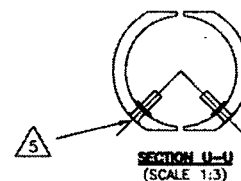
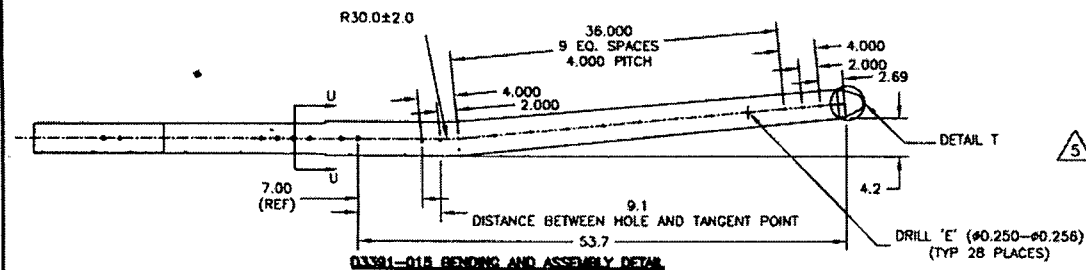


SECTION Y-Y (SCALE 1:4)

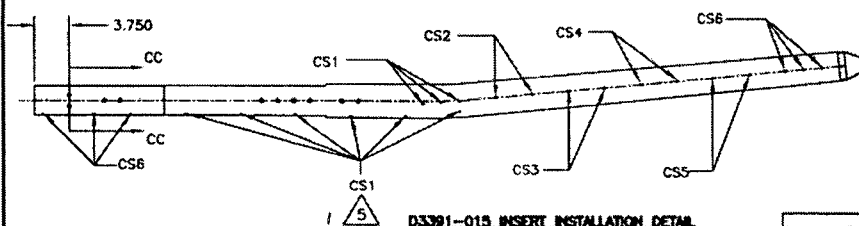
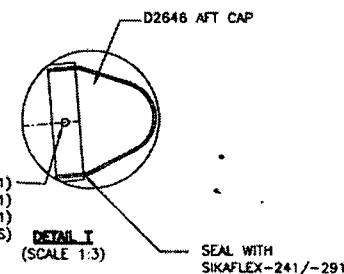


SECTION O-O (SCALE 1:4)

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DATE 05.09.27		DRAWING NO. D3391		REV. C
		TITLE 412 FLOAT SKIDTUBE		SHEET 3 OF 5
				SCALE



AN304A BOLT (1)
NAS1515H3L WASHER (1)
AN960C10L WASHER (1)
(2 PLACES)



C'SINK AND INSTALL AESS10KBXXX AND/OR
NAS1330C3KBXXX IN HOLES MARKED CS1-CS6 AS
FOLLOWS

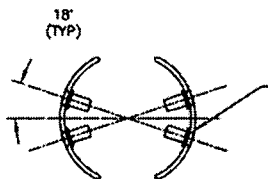
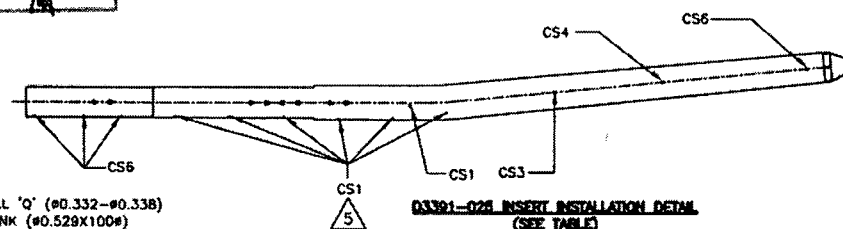
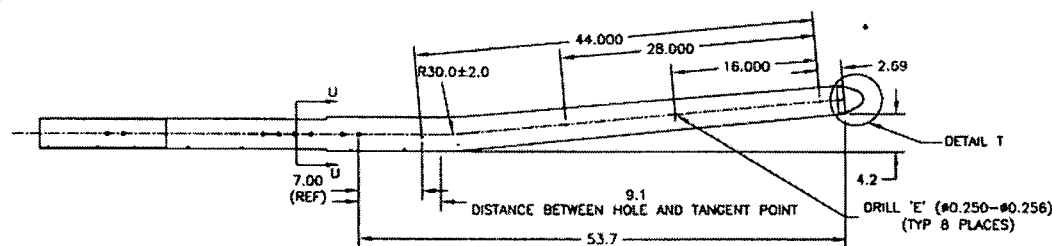
HOLES MARKED	QTY D3391-015	QTY D3391-025	C'SINK	P/N
CS1	18	14	Ø0.425	AESS10KB366
CS2	4		Ø0.391	AESS10KB366
CS3	4	2	Ø0.391	NAS1330C3KB316
CS4	4	2	Ø0.391	NAS1330C3KB266
CS5	4		Ø0.391	NAS1330C3KB216
CS6	12	8	Ø0.391	NAS1330C3KB166

D3391-015/-025 AFT TUBE ASSEMBLY PARTS LIST

QTY - 015	QTY - 025	PART NUMBER	DESCRIPTION
X		D3391-015	AFT TUBE ASSEMBLY
	X	D3391-025	AFT TUBE ASSEMBLY
1	1	D6014-090	AFT TUBE
1	1	D2646	AFT CAP
18	14	AESS10KB366	INSERT
4	2	NAS1330C3KB316	INSERT
4	2	NAS1330C3KB266	INSERT
4		NAS1330C3KB216	INSERT
12	8	NAS1330C3KB166	INSERT
4		NAS1330C4KB151	INSERT
2	2	AN304A	BOLT
2	2	NAS1515H3L	WASHER
2	2	AN960C10L	WASHER

RELEASED

05-11-14



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DESIGN PH
CHECKED PH
DATE 05.09.27

DRAWN BY PH
APPROVED PH

DART DART AEROSPACE USA, INC.
PART INCLUDES: 10
DRAWING NO. D3391
TITLE 412 FLOAT SKIDTUBE
REV. C
SHEET 5 OF 5
SCALE 1:12

